

# **METHOD AND APPARATUS FOR USING A CAPACITOR ARRAY TO MEASURE ALIGNMENT BETWEEN SYSTEM COMPONENTS**

## **ABSTRACT**

One embodiment of the present invention provides a system that measures alignment between a first semiconductor die and a second semiconductor die. The system operates by applying a pattern of voltage signals to a two-dimensional array of conductive transmitter elements that form a transmitter array on the first semiconductor die. This transmitter array is positioned over a corresponding two-dimensional array of conductive receiver elements that form a receiver array on the second semiconductor die, whereby a voltage signal applied to a transmitter element induces a voltage signal in one or more receiver elements. The system amplifies voltage signals induced in receiver elements in the receiver array, and subsequently analyzes the amplified signals to determine an alignment between the first semiconductor die and the second semiconductor die.